

Claims

1. A contact assembly for a steering wheel comprising:
a first circuit board having at least one vertically extending arm, said arm including a resilient contact thereon for non-fixedly engaging a corresponding
5 contact on a second circuit board, said second circuit board being adapted to cooperate with buttons on the steering wheel to actuate various vehicle functions.
2. The contact assembly of claim 1, wherein the vertically extending arm is generally L-shaped with a top shelf lying generally parallel to said second
10 circuit board, the top shelf having the resilient contact thereon for engaging the corresponding contact on said second circuit board.
3. The contact assembly of claim 2, wherein the resilient contact is a leaf-spring contact that is pressed into engagement with the corresponding
15 contacts of the second circuit board so as to be able to move both laterally and vertically with respect the second circuit board without disengaging therefrom.
4. The contact assembly of claim 1, wherein said second circuit board is located in a base of a multi-function button assembly, the base having an
20 opening so that the resilient contact of the first circuit board may engage the contact of the second circuit board.
5. A steering wheel having a primary circuit board located in a first plane and having at least one arm extending out of said first plane, the at least one
25 arm having resilient contacts on an end thereof;
a button assembly for controlling various vehicle functions, the button assembly having a secondary circuit board which is connected to the resilient contacts on the at least one arm of the primary circuit board, such that the secondary circuit board lies in a second plane that is offset from the first plane.

6. The steering wheel of claim 5, wherein the at least one arm is generally L-shaped and has a shelf lying adjacent to the second circuit board, and the resilient contacts are located on the shelf.

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7. The steering wheel of claim 5, wherein the resilient contacts are leaf-springs that non-fixedly engage the contacts of the second circuit board so that they can move parallel or perpendicular to the second plane without disengaging from the contacts of the second circuit board.

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8. The steering wheel of claim 5, wherein the button assembly includes a housing having at least one cavity therein, the at least one cavity holding at least one button which controls a vehicle function, the at least one button having a pin extending through the cavity for engaging the second circuit board.

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9. The steering wheel of claim 8, wherein the button assembly includes a base that lies between the at least one arm and the secondary circuit board, the base having an opening to allow the resilient contacts to protrude therethrough to engage the contacts of the secondary circuit board.

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10. The steering wheel of claim 5, wherein the primary circuit board is located in the center of the steering wheel and includes two wings extending in generally opposite directions therefrom, the wings each having the at least one arm for engaging the secondary circuit board, and two button assemblies located on opposite sides of the center of the steering wheel for cooperating with each arm of the primary circuit board.

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